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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,645	10/27/2003	Timothy M. Morris	PA-004.02739-US (03-634)	4007
34704 7590 07/07/2010 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER DINH, TIEN QUANG	
			ART UNIT 3644	PAPER NUMBER
			MAIL DATE 07/07/2010	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/694,645	Applicant(s) MORRIS ET AL.	
	Examiner Tien Dinh	Art Unit 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20,23-30,31,33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) 28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20,23-27,30,31,33 and 34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/5/10</u> . | 6) <input type="checkbox"/> Other: _____ |

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Claim Rejections - 35 USC § 112

Claims 20 and 23-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant has claimed that there is a means for monitoring torque change on a rotor drive shaft which is indicative of a power demand change and that the FADEC monitored the torque change. However, the specification seems to only mention "torque" and FADEC in paragraph 26. Paragraph 26 also mentioned "an inputted signal 39 representative of torque change on a drive shaft, such as the electric generator drive shaft, as sensed by a sensor 41, preferably mounted on the shaft, indicating power demand change". Nowhere else in the specification does it mention "torque", especially with FADEC and the engine 40, which applicant seems to be claiming.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 20, 23-25, 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojciehowski et al in view of Schafer et al.

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Wojciehowski et al teaches a system for generating accessory power from a gas turbine engine that uses a pneumatically operated means 26 for receiving bleed air and controlled by a control valve 46 and for generating power to operate equipment onboard (see figure 1) on the aircraft but is silent on the means for monitoring torque change on a rotor drive shaft which is indicative of a power demand and means for supplying information about said monitored torque to the FADECs. Schafer et al teaches that FADECs (which has feedback loops) are well known in the art to monitor and control elements in an engine system (which seems to include the torque of the engine) are well known in the art. Schafer et al's FADEC monitors the engine speed (see column 1, line 42) as well as the power requested. See column 2, line 30-44. The engine speed is equal to power divided by the torque. Hence, although Schafer et al doesn't mention "torque" it seems evident that torque is supplied to and is monitored by Schafer et al's FADEC.

It would have been obvious to one skilled in the art at the time the invention was made to have used FADECs in Wojciehowski et al's system as taught by Schafer et al to safely and efficiently generate power to operate the aircraft equipments. Plus, the FADEC system also monitors the performance of the engine to optimize its performance and supplied necessary power to other components on the aircraft.

As for the last paragraph of amended claim 20, Wojciehowski et al teaches that the pneumatically operated means 26 for receiving bleed air and for generating shaft power (the shaft can be seen attached to the element 26 and clearly extends aft to drive the pump 28. This reduces demand for shaft power from the rotor drive shaft, which leads to increasing stall margin available to a high pressure compressor of engine.

Re claim 33, the drive shaft is a rotor drive shaft of the engine.

Claims 26, 27, and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojciehowski et al as modified by Schafer et al, as applied to claim 20 above, and further in view of the admitted prior art on page 5, paragraph [0028].

Wojciehowski et al as modified by Schafer et al discloses all claimed parts except for the pneumatically integrated generators for supplying electrical or mechanical power. However, the admitted prior art on page 5, paragraph [0028] teaches that pneumatically integrated generators that supply electrical and mechanical powers are well known in the art.

It would have been obvious to one skilled in the art to have used additional pneumatically integrated generators in Wojciehowski et al's system as modified by Schafer et al and as taught by the admitted prior art on page 5, paragraph [0028] to generate power for other accessories. Please note that accessories such starter/generators, fuel pumps, etc. and gearboxes are well known in this day and age and one skilled in the art can used the pneumatically integrated generators to generate power to supply power to the accessories.

Response to Arguments

The examiner maintains the 35 USC 112, first paragraph since nowhere in the specification does it disclose "torque" with FADEC and the engine 40, which applicant seems to be claiming.

The examiner has dropped the Wikipedia.org reference as a further clarification of what a FADEC is or what it does but the rejection is still maintained since the prior arts read upon what has been claimed.

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As for the applicant's contention that Wojchichowski et al in view of Shafer fails to show any means for sensing torque change on the drive shaft which is indicative of a power demand change and a means for supplying information about the sensed torque change to a FADEC. The examiner respectfully disagrees. FADECs monitor the change in power needed. Shafer et al's FADEC monitors the engine speed (see column 1, line 42) as well as the power requested. See column 2, line 30-44. The engine speed is equal to power divided by the torque. The torque is supplied to and is monitored by Schafer et al's FADEC. When Wojchichowski et al is modified by Shafer, the FADEC would monitor the change in power. The use of the electronic system (FADEC) would clearly improve the performance of Wojchichowski et al's system. This was agreed by the board of appeal's decision dated 1/29/09.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 571-272-6899. The examiner can normally be reached on 12-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mansen can be reached on 571-272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tien Dinh/
Primary Examiner, Art Unit 3644